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SURVEY OF PHYSICIAN ATTITUDES AND PRACTICES IN LIPID LOWERING MANAGEMENT**Lewis BE¹, Rosen J², Roselli A³, Goldberg RJ⁴**¹AstraZeneca, Worcester, MA, USA, ²ProHealth Physicians, Inc, Bristol, CT, USA, ³ProHealth Physicians, Farmington, CT, USA, ⁴University of Massachusetts Medical School, Worcester, MA, USA

OBJECTIVES: While published guidelines for managing hyperlipidemia are well publicized, many patients either are not treated or managed suboptimally. This study examined physicians' knowledge, attitudes and practices in managing primary care patients with elevated serum lipid levels. **METHODS:** An online questionnaire was developed, pilot tested, and administered to 98 primary care physicians with patients at varying risk for coronary heart disease (CHD.) The questionnaire was administered during a two week period. Questions assessed physician's knowledge of current national guidelines for managing patients with hyperlipidemia, use of various lipid lowering therapies, lifestyle interventions to lower serum lipids, use of national guidelines, and treatment practice for patients at varying risk for CHD. Questions used a 5 point Likert scale (with 1 indicating very important and 5 of little to no importance). **RESULTS:** The questionnaire had an 80% response rate. Most physicians reported following published national cholesterol guidelines all (15%) or most (77%) of the time. Physicians perceived themselves to be very knowledgeable about current published national guidelines for the management of elevated serum cholesterol levels (53%), lifestyle interventions to lower serum lipids (50%), and lipid lowering therapies (49%); they were considerably less knowledgeable (19%) about costs of lipid lowering medications. Major concerns with the use of published national guidelines included lack of patient compliance (moderately to strongly agree) (72%), and lack of time to adequately use guidelines during office visits (22%). **CONCLUSIONS:** Despite physician guideline awareness, achieving desirable serum lipid levels in the patient population remains an elusive target. Current provider education efforts are not sufficient. As more managed care organizations and group practices implement electronic medical records, the use of evidence based treatment algorithms should result in better management of cardiovascular risk factors, including elevated LDL levels, in general practice populations as well as targeted high risk groups.

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INITIAL PHARMACEUTICAL TREATMENT OF SIMPLE HYPERTENSION**Zhang K, Young C**

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OBJECTIVES: The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7) recommended diuretics as first-line treatment for plan participants with simple hypertension in 2003. This study evaluated initial pharmaceutical treatment for plan participants diagnosed with simple hypertension. **METHODS:** The authors selected Caremark plan participants from integrated, deidentified pharmacy and medical claims data who were diagnosed with hypertension between Oct. 10, 2003, and March 31, 2004. Plan participants had to be eligible for pharmacy and medical benefits one year prior and one month post diagnosis, not have a prior diagnosis for hypertension, and not be diagnosed with a comorbid condition during the 11-month period studied. **RESULTS:** In the month following diagnosis, 2033 plan participants filled a prescription for at least one antihypertensive drug. Most of these plan participants were treated by primary-care physicians (84.9%). The remainder were

treated by either by a cardiologist (2.3%) or some other type of specialist (12.8%). Of all those studied, 41.2% were initiated on a diuretic either as monotherapy or in combination with one of the other drugs. Those starting with diuretic monotherapy represented 26.3%, while 30.9% initiated therapy with a combination of antihypertensive drugs. The remaining 42.8% were initiated on some other type of monotherapy. Of the plan participants who initiated therapy with one antihypertensive, 31.8% started with a diuretic, 21.7% with an ACE inhibitor, and 17.8% with a beta-blocker. Of those prescribed a combination of drugs, 45.2% initiated on an ARB and diuretic, 34.9% on an ACE inhibitor and diuretic. Overall, 63.69% started with generic therapies and 36.31% with a brand drug. **CONCLUSION:** Only a minority of plan participants diagnosed with simple hypertension, without complicating comorbid conditions, were prescribed a diuretic monotherapy.

CARDIOVASCULAR DISEASE—Methods and Concepts

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PREDICTING ANTIHYPERTENSIVE DRUG UTILIZATION: AN APPLICATION OF LATENT CLASS MODELS**Thiebaud P, Patel BV**

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OBJECTIVES: To analyze patterns of antihypertensive drug utilization and to forecast pharmacy utilization and costs in hypertensive patients. **METHODS:** The sample consisted of 23,272 patients who were continuously eligible for drug benefits for at least 14 quarters. Utilization was recorded and summarized for every quarter. The first two quarters represented the baseline utilization, and the following 12 quarters were used to determine individual utilization trajectories. Patients were included in the sample if they used antihypertensive drugs during the baseline period. The sample was split into analysis and test sub-samples. Model parameters developed in the analysis sample were used to forecast utilization in the test sample. Utilization for the fifth and twelfth quarters was predicted based upon information gathered from the previous quarter. The accuracy of the model was tested by comparing predicted and actual outcomes. The analysis was based on latent class models. Demographic characteristics, drug benefit details, and concurrent drugs served as covariates. Two outcome variables were computed for each patient: the number of prescriptions per quarter and the probability of exceeding a certain cost threshold. **RESULTS:** For number of prescriptions, the quarter-ahead forecasts were within 0.4 prescriptions of the actual figures. For prescription expenditures greater than \$150, the difference between actual and estimated probabilities was 0.9% for the twelfth-quarter forecast and 4.4% for the fifth-quarter. Latent class models also accurately separated patients into low/high cost groups and increasing/decreasing cost groups by defining cost and utilization trajectories for individual patients. **CONCLUSION:** Latent class models produce accurate forecasts that can be used to improve the management of hypertensive patients. Compared to other forecasting techniques, these models produce results that can be more easily understood by a wide range of readers, a critical issue in outcomes research.

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VARIATION OF COST-TO-CHARGE RATIO FOR CABG PATIENT BY HOSPITAL TYPE OVER TIME**Huang X¹, Gondek K¹, Smith P²**¹Bayer Pharmaceuticals Corporation, West Haven, CT, USA, ²Duke University Medical Center, Durham, NC, USA

OBJECTIVES: Cost of care is essential for burden of illness and cost-effectiveness studies. However, collecting cost data is very